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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,795	08/04/2003	Duk-Yong Kim	P56939	5556

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01/12/2007

EXAMINER

GILMAN, ALEXANDER

ART UNIT

PAPER NUMBER

2833

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/632,795	Applicant(s) KIM ET AL.	
	Examiner Alexander D. Gilman	Art Unit 2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5,8-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5 and 8-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the the filter using coils and dielectric materials must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, 5, 8, 9, 11, 13, 14, 15, 16, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryman in view of European Patent Application (EP 0 746.051) and Kojima et al or Monnett.

With regard to claims 1,4, 9, 12, 13, 15, 17, Ryman (US 6,721,155) discloses a bias-T apparatus comprising:

a housing (12) comprising an input connector (15) to be connected to a ground base transceiver station and an output connector (16) to be connected to an antenna, said input connector and said output connector integrally formed at opposite sides of the housing, the housing having a housing hole and a fixing hole, the housing hole being formed longitudinally in the housing, the fixing hole connected perpendicularly to the housing hole;

a center conductor (20) inserted in the housing hole and including a first conductor and a second conductor, which have a first connector pin and a second connector pin, respectively, the first connector pin and the second connector pin being respectively inserted inside of the output connector and the input connector, thereby enabling electric connection of a signal between the input connector and the output connector; and

a fixing pin having a first end (30) connected perpendicularly to the center conductor and a second end (34) inserted in the fixing hole, so that direct current power can be supplied from the second end to the output connector, the direct current power being supplied to said first conductor through a coil filter (36) and said fixing pin.

Ryman explicitly do not disclose the conductor shaft being inserted in the reception tube so that the first conductor and the second conductor are assembled with each other (and function as

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electrode plates of the capacitor ,according to the Specification ,p. 9, lines 5, 6), while Ryman disclosing the capacitor structure claimed but applied to the component 14.(col. 6, lines 51-54). European Patent Application (EP 0 746 051) disclose (Fig. 2, 3, 5 the conductor shaft (PF) being inserted in the reception tube (CC) so that the first conductor and the second conductor are assembled with each other

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Ryman with the capacitance device, as taught by European Patent Application (EP 0 746 051), to simplify the capacitive mechanism.

With regard to claims 2, 5, 14, Ryman discloses the housing has a recess (recess receiving 14).

With regard to claim 16, Ryman discloses a gas tube arrester (60) and diodes.

Claims 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ryman in view of European Patent Application (EP 0 746 051) and further Kojima et al or Monnett

Ryman-European Patent Application (EP 0 746 051) do not disclose anodization one of the reception tube or the shaft.

Kojima et al (US 6,719,813) and Monnett (US 6,791,821 disclose a solid electrolytic capacitor with galvanic anodization (col. 2, lines 66-67 through col. 3, lines 1-3).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Ryman with the capacitance device , as taught by Monnett or Kojima et al , to achieve the required capacitive operational parameters.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ryman in view of European Patent Application (EP 0 746 051) and further in view of Sato et al.

Ryman when modified by European Patent Application (EP 0 746 051)disclose all of the limitations as applied to claims 4, 12, above but does not disclose the EMI filter using coils and

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dielectric materials.

Sato et al (US 5,206,779) disclose EMI filter using coils and dielectric materials (Fig. 5) .

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Ryman with the EMI filter, as taught by Sato et al , to effectively suppress the EMI noise.

Response to Arguments

Applicant's arguments filed 10/19/2006 have been fully considered but they are not persuasive.

Applicant argue that Ryman does not suggest the input connector with a connection to a ground base transceiver station as claimed in the present invention.

However, Ryman teaches a connection to "ground- based equipment end", which as a broad term, incorporates a ground base transceiver station.

Also, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

Also, Applicant argues that would-be modified structure would not be equivalent to that one of the invention , because of the tuning features of the inner (central) conductor and necessity of in-series connection of the capacitor with the inner conductor.

However, the rejection recommends replacement of the standard capacitor with a simple capacitor structure, which according to the secondary reference (EP 0 746 051, Fig. 8, the joint at A) is just male-female connection of the two parts of inner (central) conductor. With this structure tuning (which instead can be performed at the outer conductor according to Ryman) is

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not affected and the capacitor is disposed in series between two ends of two parts of the inner conductor.

Also, Applicant argues that the modification by a conductor shaft being inserted in the reception tube so that the first conductor and second conductor are assembled with each other, there could be problems. Ryman specifically discloses portion 34 which could be problematic in assembling the shaft in such a manner.

However, the outer wall 34 can be of a variable length depending on geometrical features of the structure of modified capacitor, which provides with a simple, cost-effective, easy to manufacturing solution.

Also, Applicant argues that Sato only provides an EMI filter, but does not teach or suggest that it should be in recess.

However, Sato (the secondary reference) teaches the filter of the specified structure which would be incorporated into Ryman (the primary reference) having the respective recess. Also, the specified structure of the filter is not a critical for the invention (p. 10, lines 4-6).

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander D. Gilman whose telephone number is 571 272-2004. The examiner can normally be reached on Monday-Friday, 10:30 a.m. - 8:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on 571 272-2800 ext. 33. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

06/08/2006



ALEXANDER GILMAN
PRIMARY EXAMINER